

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-000010**Date Inspected:** 15-Jan-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**Quality Control Contact:** Liu Liu**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Review of radiographic testing**Bridge No:** 34-0006**Component:** Procedure Qualification test plate**Bid Item:****Lot No:** B31-005-07 to B31-011-07**Summary of Items Observed:**

On this date the QA representative Joe Lanz performed a review of radiographic film of procedure qualification test plates. Following is a list of test plates and details.

Procedure qualification test plate ID HP2006131, Caltrans index lot number B41-004-07 performed by Zhenhua Port Machinery Company (ZPMC). The test plate was radiographed by Jin Tong Jian Chen NDT Company LTD. of Shanghai China. The NDT Level II Inspector Mr. Huang Ming Hai performed the radiography and review of the radiographic film prior to submitting the NDT report and the radiographic film to the Quality Assurance Inspector for review. The film quality and weld quality were interpreted by Mr. Hai for compliance with AWS D1.5-2002 Section 6 Part B and Figure 6.1A and the results met the requirements of paragraph 6.26.2. Mr. Hai found the radiographs to be acceptable and the QA inspector concurred with the interpretation with the following exception. The view number 2 was found to have no location markers visible on the film. AWS D1.5-2002, paragraph 6.10.8 states "Welded joints shall be radiographed and the film indexed by methods that will provide complete and continuous inspection of the joint within the limits specified to be examined." The QA inspector noted that the Engineer may want to accept the film with the above deficiencies noted above based on the ability to interpret the weld quality in most of the films. Caltrans witness lot number B31-006-07 was assigned for tracking purposes.

Procedure qualification test plate ID HP2006136-1, 25mm thick. Caltrans index lot number B41-012-07 performed by Zhenhua Port Machinery Company (ZPMC). The test plate was radiographed by ZPMC. The NDT Level II Inspector Mr. Huang Ming Hai performed the review of the radiographic film prior to submitting the NDT report and the radiographic film to the Quality Assurance Inspector for review. The film quality and weld quality

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were interpreted by Mr. Hai for compliance with AWS D1.5-2002 Section 6 Part B and Figure 6.1A and the results met the requirements of paragraph 6.26.2. Mr. Hai found the radiographs to be acceptable and the QA inspector concurred with the following exception. The QA inspector observed that the number 20 IQIs appeared to be placed on the film side of the test plate during radiography. AWS D1.5-2002 paragraph 6.10.7.1 states "Hole-type IQIs shall be placed on the source side with hole-type IQI parallel to the weld joint and holes at the outer edge of the area being radiographed." The film for the test plate appears to be interpretable. The testing did not appear to comply with the contract documents. Caltrans witness lot number B31-007-07 was assigned for tracking purposes.

Procedure qualification test plate ID HP2006117-2, 60mm thick. Caltrans index lot number B41-007-07 performed by Zhenhua Port Machinery Company (ZPMC). The test plate was radiographed by Jin Tong Jian Chen NDT Company LTD. of Shanghai China. The NDT Level II Inspector Mr. Huang Ming Hai performed the review of the radiographic film prior to submitting the NDT report and the radiographic film to the Quality Assurance Inspector for review. The film quality and weld quality were interpreted by Mr. Hai for compliance with AWS D1.5-2002 Section 6 Part B and Figure 6.1A and the results met the requirements of paragraph 6.26.2. Mr. Hai found the radiographs to be acceptable and the QA inspector concurred with the following exception. The QA inspector observed that the number 40 IQIs appeared to be placed on the film side of the test plate during radiography. AWS D1.5-2002 paragraph 6.10.7.1 states "Hole-type IQIs shall be placed on the source side with hole-type IQI parallel to the weld joint and holes at the outer edge of the area being radiographed." The test plate was radiographed using Cobalt 60 for a source of radiation. AWS D1.5-2002 paragraph 6.10.6 states "Cobalt 60 shall be used as an RT source only when the steel being radiographed exceeds 75 mm [3 in.] in thickness. Other RT sources shall be subject to the approval of the Engineer." The test plate appears to be interpretable. The testing did not appear to comply with the contract documents. Caltrans witness lot number B31-008-07 was assigned for tracking purposes.

Procedure qualification test plate ID HP2006116, 60mm thick. Caltrans index lot number B41-005-07 performed by Zhenhua Port Machinery Company (ZPMC). The test plate was radiographed by Jin Tong Jian Chen NDT Company LTD. of Shanghai China. The NDT Level II Inspector Mr. Huang Ming Hai performed the review of the radiographic film prior to submitting the NDT report and the radiographic film to the Quality Assurance Inspector for review. The film quality and weld quality were interpreted by Mr. Hai for compliance with AWS D1.5-2002 Section 6 Part B and Figure 6.1A and the results met the requirements of paragraph 6.26.2. Mr. Hai found the radiographs to be acceptable and the QA inspector concurred with the following exception. The QA inspector observed that the number 40 IQIs appeared to be placed on the film side of the test plate during radiography. AWS D1.5-2002 paragraph 6.10.7.1 states "Hole-type IQIs shall be placed on the source side with hole-type IQI parallel to the weld joint and holes at the outer edge of the area being radiographed". The test plate was radiographed using Cobalt 60 for a source of radiation. AWS D1.5-2002 paragraph 6.10.6 states "Cobalt 60 shall be used as an RT source only when the steel being radiographed exceeds 75 mm [3 in.] in thickness. Other RT sources shall be subject to the approval of the Engineer." The test plate appears to be interpretable. The testing did not appear to comply with the contract documents. Caltrans witness lot number B31-009-07 was assigned for tracking purposes.

Procedure qualification test plate ID HP2006128, 75mm thick. Caltrans index lot number B31-002-06 performed by Zhenhua Port Machinery Company (ZPMC). The test plate was radiographed by Jin Tong Jian Chen NDT Company LTD. of Shanghai China. The NDT Level II Inspector Mr. Huang Ming Hai performed the review of

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the radiographic film prior to submitting the NDT report and the radiographic film to the Quality Assurance Inspector for review. The film quality and weld quality were interpreted by Mr. Hai for compliance with AWS D1.5-2002 Section 6 Part B and Figure 6.1A and the results met the requirements of paragraph 6.26.2. Mr. Hai found the radiographs to be acceptable and the QA inspector concurred with the following exception. The QA inspector observed that the number 45 IQIs appeared to be placed on the film side of the test plate during radiography. AWS D1.5-2002 paragraph 6.10.7.1 states "Hole-type IQIs shall be placed on the source side with hole-type IQI parallel to the weld joint and holes at the outer edge of the area being radiographed." The test plate appears to be interpretable. The testing did not appear to comply with the contract documents. Caltrans witness lot number B31-010-07 was assigned for tracking purposes.

Procedure qualification test plate ID HP2006133, 75mm thick. Caltrans index lot number B31-001-06 performed by Zhenhua Port Machinery Company (ZPMC). The test plate was radiographed by Jin Tong Jian Chen NDT Company LTD. of Shanghai China. The NDT Level II Inspector Mr. Huang Ming Hai performed the review of the radiographic film prior to submitting the NDT report and the radiographic film to the Quality Assurance Inspector for review. The film quality and weld quality were interpreted by Mr. Hai for compliance with AWS D1.5-2002 Section 6 Part B and Figure 6.1A and the results met the requirements of paragraph 6.26.2. Mr. Hai found the radiographs to be acceptable and the QA inspector concurred with the following exception. The QA inspector observed that the number 45 IQIs appeared to be placed on the film side of the test plate during radiography. AWS D1.5-2002 paragraph 6.10.7.1 states "Hole-type IQIs shall be placed on the source side with hole-type IQI parallel to the weld joint and holes at the outer edge of the area being radiographed." The test plate appears to be interpretable. The testing did not appear to comply with the contract documents. Caltrans witness lot number B31-011-07 was assigned for tracking purposes.

Summary of Conversations:

The above issues were reviewed with the Senior Lead QA inspector Mr. David McCleary. and a Non Conformance Report is to be issued for the above issues.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

Inspected By:	Lanz,Joe	Quality Assurance Inspector
Reviewed By:	Wright,Mark	QA Reviewer
